# TX-1919W20FC120-NUFEZW-B01D

# PRODUCT SPECIFICATION
# (R&D version)

## Features:

◆Excellent transiting heat from LED chip operating under1.5A.

◆Ceramic eutectic package allows it to have minimal internal stress and excellent thermal path.

◆Flip chip coated with package, the output of lumen is stable.

◆High luminous output.

◆Encapsulated materials are environmentally certified and meet environmental requirements.

## Chip Material:

◆InGaN

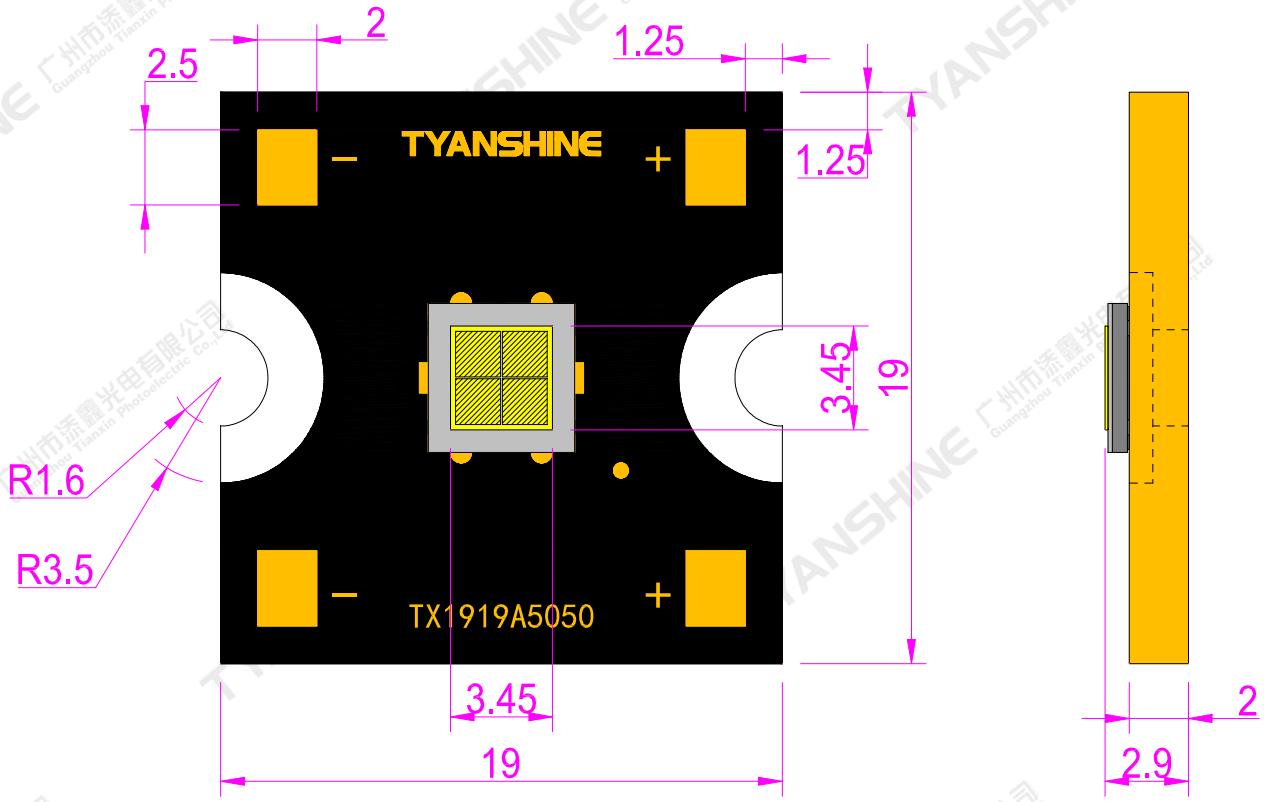
## Emitting Color:

◆Cold white

## Applications:

◆Automobile lighting

## Package Dimensions:




**Notes:**

1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are ±0.1mm .

# Absolute Maximum Ratings (Tc=25℃)

| Parameter | Symbol | Ratings | Unit |
|---|---|---|---|
| Forward Current | IF | 1.5 | A |
| Reverse Voltage | $V_R$ | Not designed for reverse operation | V |
| Power Dissipation | $P_D$ | 20 | W |
| Junction Temperature | Tj | 150 | ℃ |
| Electrostatic Discharge Threshold (ESD) | ESD | 2000 | V |
| Storage Temperature | $T_{stg}$ | -20~+65 | ℃ |
| Operation Temperature | $T_{opr}$ | -40~+125 | |

**Notes:**

1.Specifications are subject to change without notice.

2.The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.

3.Precautions for ESD:

STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

# Electrical Optical Characteristics (Tc=25°C)

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| Luminous Flux | $\varphi_v$ | If=1.5A | 1900 | 2200 | — | lm |
| Forward Voltage | $V_f$ | | 13.2 | 13.8 | 14.4 | V |
| Viewing Angle at 50％IV | $2\theta_{1/2}$ | | — | 120 | — | Deg |
| Correlated Colour Temperature | CCT | If=1.0A | 6000 | 6500 | 7000 | K |
| Reverse Current | $I_R$ | — | — | — | — | μA |
| Thermal Resistance Junction to Case | $R\theta_{J-C}$ | 1.5A | — | 0.63 | — | K/W |
| Temperature Coefficient of Voltage | V△F/T | | — | -4.1 | — | mV/℃ |
| Color Rendering Index | Ra | | — | 70 | — | — |

**Notes:**

1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2.$\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

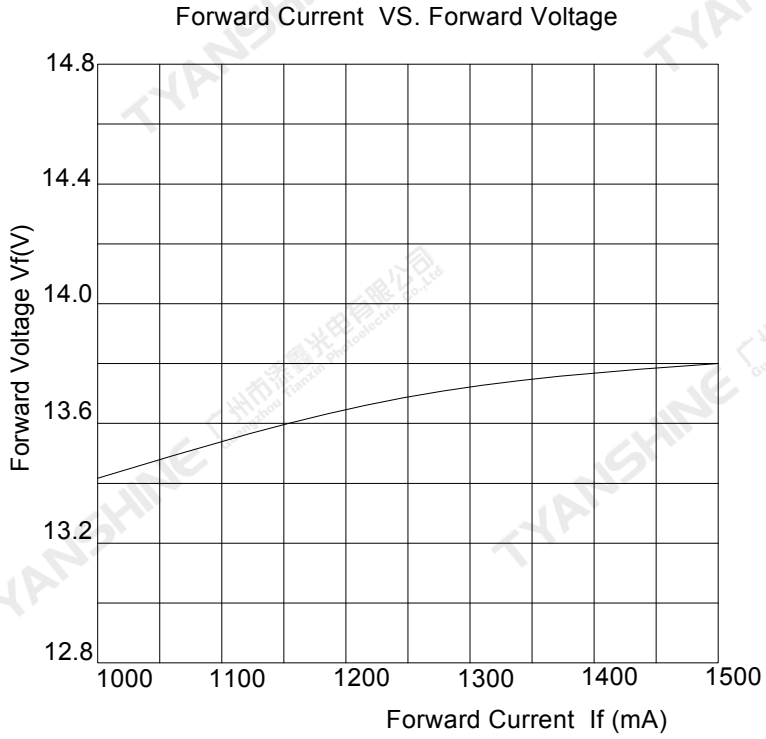
3.The dominant wavelength (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

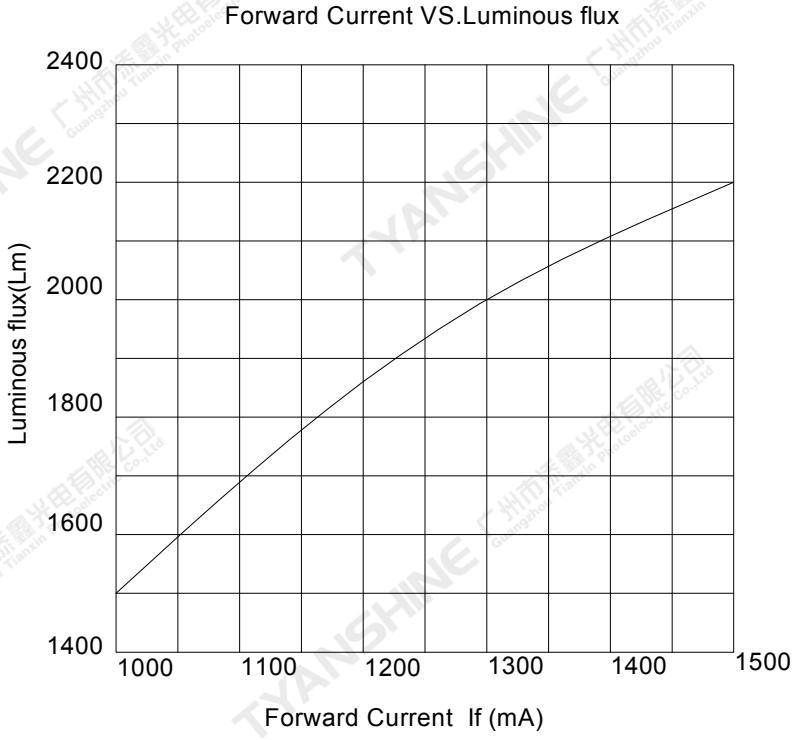
4.Luminous flux measurement tolerance:±15%.

5.Forward voltage measurement tolerance:±0.15V.

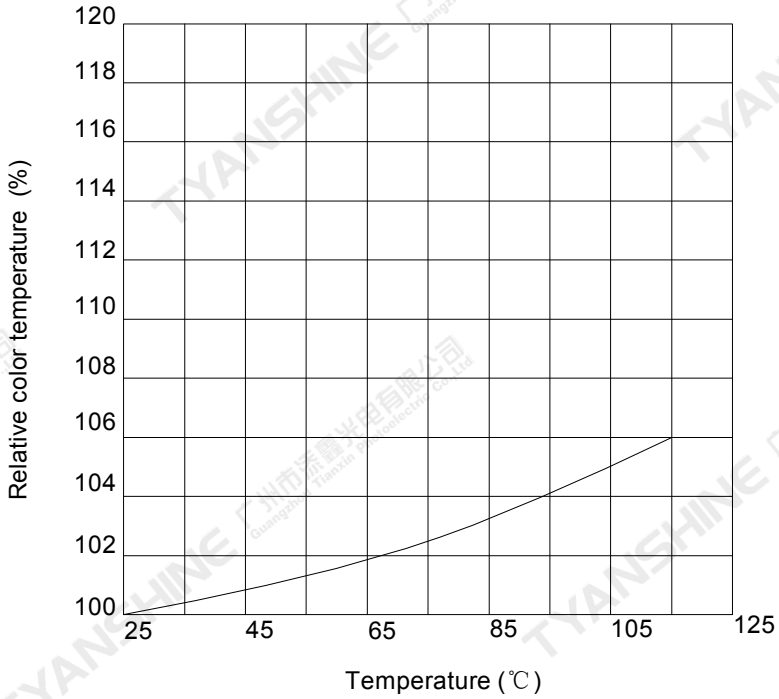
# Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

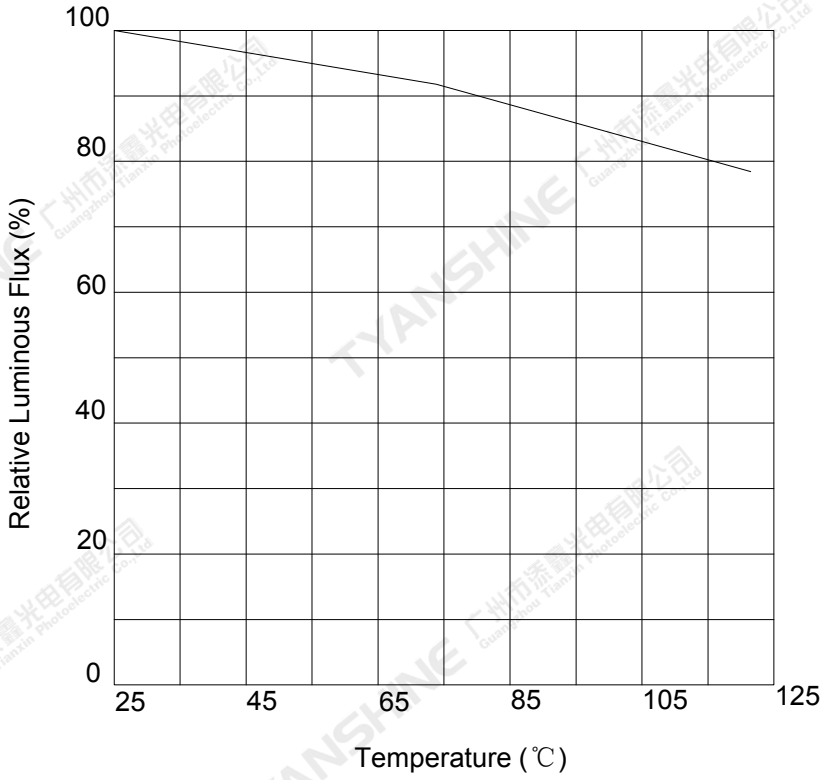


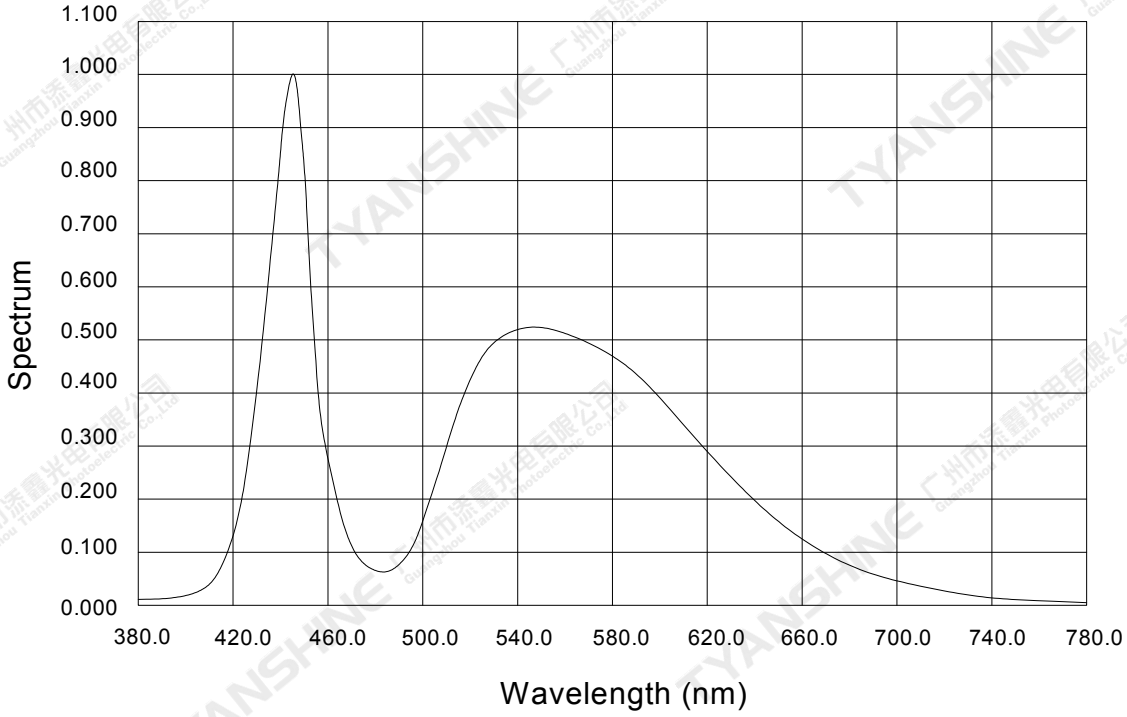
Temperature VS. Relative color temperature (IF=1500mA)



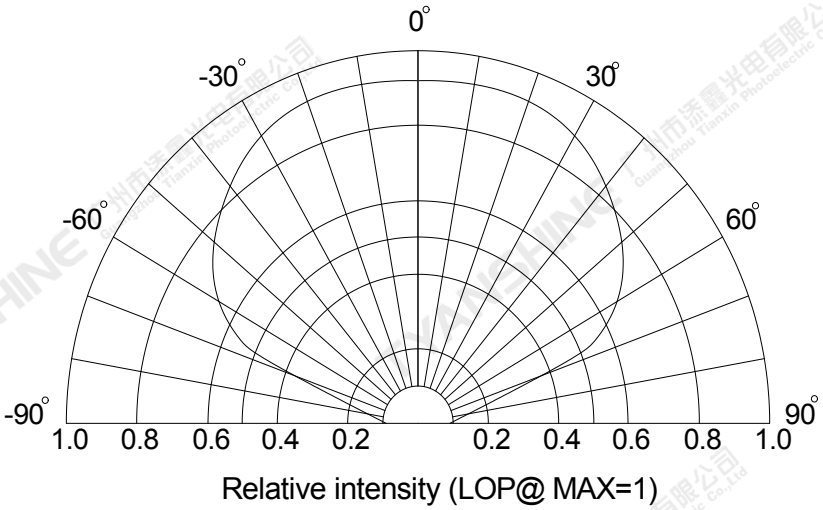

Temperature VS. Relative Luminous Flux (IF=1500mA)



Relative Spectral Distribution




Beam Pattern




**Notes:**

1. 2θ 1/2 is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is ± 5°.